



YESTERDAY

Turn back to 1913 . . . for a look at agricultural marketing a half century ago. A third of our people lived on farms. For them, food moved almost directly from field to table. In the city, the backyard chickenpen and the vegetable garden were fairly common; and some milk was dipped into open buckets by the retail vendor. The cry of the huckster was a familiar sound. Food preservation, for many, meant home canning, smoked or salted meat, eggs packed in water-glass. The seeds of today's complex marketing system were sprouting, but it was still the era of the cracker-barrel, the butchershop, the grocery route and delivery boy. The self-service supermarket was unknown; so were most frozen foods, instant foods, and sliced double-wrapped bread. Dried fruits were a more familiar sight than fresh fruits or vegetables in midwinter. There were few if any grades or standards for quality of farm products, fragmentary market information, and much complaint about marketing practices. There were demands for the USDA and the colleges to bring science to the service of marketing as they had already brought it to the service of production for a half century. In this climate of 1913, an Office of Markets was established in the U.S. Department of Agriculture.



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Cover Page

This month's cover commemorates the fiftieth anniversary of establishment of the Office of Markets, predecessor of the Agricultural Marketing Service in the U.S. Department of Agriculture. AMS has the responsibility of helping maintain order and efficiency in our marketing system—that huge complex through which a steer becomes a steak; or a chicken, some potatoes and peas a pre-cooked, frozen dinner. It is also the means through which the 6,000 or so items representing farm products get on the shelves of the modern supermarket. To meet its responsibility, AMS provides Federal and universal standards to measure quality; grading services which employ these standards in certifying quality; nationwide market news to help farmers decide when and where to market and to keep products flowing to the markets where needed; regulation to safeguard our free markets; research for more efficient marketing methods; and distribution of our food abundance in a variety of beneficial ways.

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Marketing—Nerve Center of Agriculture



Secretary Freeman



Assistant Secretary Duncan

MARKETING is a nerve center of the agriculture-and-food portion of our national economy. It plays a major role in the farmer's return on his labor and investment. It is the consumer's lifeline on which he depends for his daily food needs. It is a weekly wage to millions who assemble, grade, transport, store, process, package, and merchandise the products of our farms. Our marketing system is one of the best and most efficient in the world. It provides the model for other countries which seek to do as good a job as we do in feeding and clothing our citizens. But we are not satisfied. As we begin a second half century of marketing work in the Department of Agriculture, we look for still greater achievements from our marketing system. We seek ways in which marketing can move food to consumers in better condition and help provide a fair return for farmers—we seek, in other words, all elements which marketing can contribute to a growing nation's economy.

SECRETARY OF AGRICULTURE

FIFTY years ago the Office of Markets was established within the Department of Agriculture. Since that time, our country has become an increasingly urban society and the marketing of farm products has become increasingly complex. By the same token, the marketing work of the Department, now centered in the Agricultural Marketing Service, has changed both in size and character. It has become increasingly important—as has the marketing operation itself—to farmers, to consumers, and to the some 10 million Americans engaged in marketing farm products. As our marketing system continues to evolve in the years ahead, we can expect changes, too, in the services provided by the Department of Agriculture. But our goals will remain the same: To help create the best possible marketing system—the most efficient at lowest cost—and at the same time preserve our traditions of free enterprise and fair competition.

ASSISTANT SECRETARY OF AGRICULTURE

THE ROLE OF MARKETING IN AGRICULTURE



Agricultural Marketing—After Fifty Years

By S. R. Smith, Administrator, AMS

As we observe the 50th anniversary of marketing work in the Department of Agriculture, there is a strong inclination to dwell upon the accomplishments of the past half century. The accomplishments and the changes in marketing have been tremendous.

When the Office of Markets was established in 1913, there was no such thing as a milking machine or a mechanical cotton picker. Frozen foods were unheard of. The sawdust-floored meat market, the open pickle barrel, the live or New York-dressed chicken were commonplace. A network of high-speed highways, air transport, prepackaged meats, and the supermarket were still dreams of the future. Yet to come were a nationwide market news service, Federal-State inspection and grading services, our present laws to protect the interests of farmers marketing livestock and fruits and vegetables, a National School Lunch Program, and an extensive program of marketing research.

The occasion of this 50th anniversary is likely to be meaningful, however, to the extent that it is used for an assessment of the enormous problems still remaining to be solved.

As the Agricultural Marketing Service begins a second half century of marketing work, we face such questions as: How can farmers supply vast quantities of uniform-quality farm products to meet the needs of today's mass merchandising system? How can they achieve the bargaining power they need to deal with the ever-increasing buying power of the large concerns with which they do business? How can we reduce the cost of marketing—which now takes 62 cents out of every consumer food-dollar spent in the retail food stores—to hold down prices to consumers and help farmers get a fairer share?

The task of AMS is very different from that of the Office of Markets in 1913, and in many respects it is more baffling and infinitely more complicated.

Today marketing is a huge national—even international—operation. For many food products there is no longer any such thing as a local market. Moreover, marketing has become a diffuse and complex operation. The old order—from farmer, through terminal market, processor, wholesaler, and retailer—no longer prevails.

Today, the farmer often sells direct to the buyer for a corporate or voluntary chain of supermarkets—or direct

to a processor. Beyond the farmer, transactions typically take place between firms of huge size. Integration and other contractual arrangements also complicate the picture.

Farmers have turned increasingly to marketing cooperatives, to marketing agreements and orders, and similar measures to help increase their own marketing power.

Both production and marketing are concentrated into fewer hands—and into large-scale operations.

The price-making function of marketing has become obscure. It seems doubtful that it will ever again become as easily discerned as it was when we had many buyers and sellers—none with appreciable market power—bidding against each other at a central point.

The center of market power today is at the retail level, dominated by corporate chains and groups of independent supermarkets organized to achieve similar buying and merchandising advantages. It is estimated that more than 85 percent of the retailing of food in this Nation is now in the hands of large-scale organizations. Nor is concentration limited to retailing—processing firms and marketing facilities, such as grain elevators, likewise have become fewer and larger.

While today's marketing system is a marvel of mass distribution and has certainly helped to advance our standard of living, the many changes that have come with it have increased the problems and the complexity of marketing for farmers. Obviously, there is no simple solution. But AMS will continue to seek answers to marketing problems; to protect the interests of the farmer—and the consumer; to strengthen the capacity of the producer to bargain with concentrated buying power; to protect and preserve free and open competition in our marketing system—in short, to make change work for us and not let it become our master.

Fortunately, the whole country seems to be awakening to some of the problems in marketing—though there remains much controversy over what should be done. One thing is certain: the problems will require continued intensive study by the best minds in private industry, in the universities, and in Government. And since AMS must remain close to the problems in its day-to-day operations it will need to gird itself for still greater service in the next 50 years.

The Impact of Marketing On the American Economy

By William C. Crow

SUPPOSE the people of one State had to eat 28,287 carloads of apples and little else. Without our marketing system the people in the State of Washington would have to eat their apples and millions in our major cities would starve. Of course the Washingtonians could let the apples spoil or cease producing more than the small number they could eat. But where would the New Yorker get his breakfast of orange juice, buttered toast, eggs, bacon, coffee and the sugar to sweeten it, or even the doughnut he may eat on his rush to the subway to go to work? What would he eat for lunch and dinner? Without our advanced marketing system we could not feed our people and our farmers could not make a living. Our means of survival depend upon it.

We hear grumbling because we have more grain than we need, but without a marketing system we would have big surpluses of all farm products which flow from our specialized producing areas—apples, citrus fruits, hogs, cattle, wheat, corn, butter, eggs, tobacco, cotton, and even mint juice. At first these surpluses would pile up and farm prices would fall to zero. Then their production would drop drastically to the level of nearby consumption. To compensate for the loss of his cash crop a farmer would get a few chickens, a cow and a pig, so he would not starve. But what would he use for money to buy a car, for gasoline to run it, or for a suit or to pay his debts?

Under these conditions could one farmer produce enough to feed himself and 27 other people? Still he would not be as bad off as our city people. They simply could not survive. Less than 10 percent of our people feed us all by producing specialized crops in areas where conditions are most favorable, in quantities large enough to permit extensive mechanization. But this system exists only because those specialized farmers can get those products to as many consumers as it takes to consume them—a large portion of whom are thousands of miles away, even across the oceans.

The marketing system needed to get those products there consists of many parts, all working together—fruit packing houses, egg assembly plants, milk plants, livestock auctions, poultry and livestock slaughterers, canners, freezers, grain elevators, wholesalers, retailers, restaurants—railroads, trucks, water carriers and airplanes to move the products from one facility to another over their long journey—storage houses to hold them from harvest until they are needed—equipment to move the products into, within and out of facilities and to process them. People are needed to run all these facilities, to plan and direct operations, to develop new ideas and try them out.

Many inhabitants of our large cities give no thought to the fact that they have available the largest quantity and variety of the most nutritious foods ever known, placed



in the local supermarket before they ever decided they wanted them, and for sale to them at the lowest percentage of their income in history. They expect and get fresh strawberries in the middle of the winter, potatoes already peeled and perhaps cooked, even complete dinners prepared so they have only to warm them and watch television or rush out for the evening. They take little thought of how all this happens, and their children know only that milk comes from the refrigerator and that it is always safe to drink.

But how do we get the television, the automobiles and the gasoline to run them, well-furnished homes, luxurious hotels, schools and hospitals second to none? In less fortunate parts of the world where from one-half to three-fourths of the working people must devote their lives to food production, these good things are lacking because they do not have the resources to produce them. Too many people are trying to stave off hunger. In our country we have freed nearly all our people from food production and at the same time virtually freed all from hunger. The people and other resources thus released from food problems pursue those activities which constantly give us a rising standard of living—providing not only enough for ourselves but also large quantities for needy, less fortunate people in other parts of the world.

While millions in other lands seek to achieve our level of living and our freedom to continue to bring improvements as fast as our ingenuity can devise them, many of our people seek utopia in other systems, belittling all the while the simple-minded man who went all over the world seeking wealth while on the old home place another member of his family found "Acres of Diamonds."

A recent study of the Food and Agriculture Organization of the United Nations concluded that one of the major reasons why the United States is a land of plenty while other countries are witnessing mass hunger is this country's highly developed and efficient marketing system. This system, which has developed largely in the last 50 years, not only makes it possible, as former Secretary of Agriculture Anderson once said, for our people to "throw away the best garbage in the world," it is the heart of a system which frees us from the fear of hunger, frees resources for other uses, and has enough farm products left over to send five billion dollars worth per year to needy people throughout the world. This is quite an achievement, but the accomplishments of the last 50 years merely point out the opportunities for further improvements in the years to come—not only for our own country but for less fortunate people everywhere. It may well be that our system of food production and distribution is the principal weapon in our arsenal, the most appealing characteristic of our way of life to present to other people.

(The author is Director of the Transportation and Facilities Research Division, AMS.)

STRUCTURE OF THE MARKET

By Harold F. Breimyer

FROM time immemorial men have engaged in marketing. The simplest exchange of a tiger skin for a stone ax was marketing. Further, the setting in which barter or sale took place was a "market."

The history of the development of trade and of markets is a part of the history of civilization. Wars were fought to open up markets. Physical tools were invented and human institutions were devised in order to aid marketing. Moreover, farm products and food have long been among the most important commodities traded. They still are today.

All history combines the constant and the changing, the transitory and the timeless.

During this anniversary year of USDA marketing services much will be said and written about the changes that have taken place in marketing. There will be speculation about those in view for the future. And properly so. But it is well to remind ourselves first that the mission of marketing is unchanging.

Our marketing system for farm products has a physical job to do. It must move farm products to the merchant, the processor, the distributor, the consumer. It must sort and grade and process and package and store and sell.

Nowadays that task is immense. The marketing system for farm products in the United States is the Nation's biggest business. It annually moves and transforms 135 million tons of foodstuffs worth more than \$60 billion (retail weight and value). It likewise handles nonfood products of agriculture worth several billions more. More than \$2 of value is created in the marketing of farm products for every \$1 arising in their production on the farm.

Moreover, the marketing system is expected to do that job well. It must be physically efficient—speed, economy, minimum loss of quality and weight—all are sought constantly.

Marketing also has a price-making function. This is less readily visualized but is equally a part of marketing. In marketing, ownership is transferred and prices are

arrived at. To individuals, prices are the reward to the producer and the cost to the consumer. Taken as a whole, prices are the mechanism that govern the economy. In this respect marketing is a nervous system and price is an impulse transmitted.

The marketing system fulfills its dual role in the interest of many clients. Marketing of farm products naturally is directed first of all to the needs of farmers. But not to be overlooked is the service it performs for the receiving end of the marketing system—the consuming public. Unless the wishes of consumers are met there won't be any market for the farmer.

Because it must do so much and do it so well and serve so many, the marketing system has long had various mandates and also given much help. Even though ours is entirely a private marketing system it is aware of its obligations. It is expected that prices will be fair and equitable to producers, marketers and consumers. Now, as in the past, there is to be no monopolizing, no cornering, adulterating or otherwise jeopardizing of the food supply. These are old imperatives. Private trade has long had the aid of government in meeting them. In medieval times, the sovereign's protection of the marketplace almost equalled that for religious ceremonies.

The face of marketing changes, but the mission to be done is the same now as in 1913—or 1813, or 1776.

IN colonial times, both the British government and the several colonies gave attention to marketing farm goods. In fact, many of the issues that led to the American revolution and the emergence of our American democracy concerned the marketing of farm products.

The Federal government of the United States began to give attention to the marketing of farm products long before it established a U. S. Department of Agriculture. Marketing was involved in the policy conflicts in the 1820's over building roads and other so-called internal improvements, which would link new land with old markets. Statistical reporting for agriculture began in 1939. Many studies were initiated early relating to best methods for marketing farm products, facts and figures about marketing, and the means of measuring and preserving the quality of farm products. The new Office of Markets of 1913, while a landmark, only formalized and expanded previous services.

Similarly, many State governments have long been active in aiding farm marketing.

But trying to service the marketing system is like trying to clothe a growing boy. A wardrobe is scarcely completed before it is outdated or outgrown. Services to ever-changing marketing of farm products must be retailored frequently.

The marketing system has grown to its present size as an expanding agriculture has provided for a rising popula-



tion not only as well as before, but better.

It has added vast new facilities. It processes, packages and distributes food and other farm products in a manner not previously dreamed of.

Yet the most profound changes are not in the way things are done but in the method by which the marketing system is organized. This subject has acquired the forbidding title of "market structure." In many respects, structural changes are the most meaningful of all; they are also the most difficult to understand and deal with.

Taking hogs to market by truck instead of wagon is a less significant change than decentralization of the market to which they go. Disappearance of farm-to-farm pick-up of poultry in a ½-ton truck has some meaning; but since World War II much broiler marketing has changed to a new system of direct delivery in fulfillment of contract, and this has more meaning. For in it, broilers may go through no market sale at all until they are dressed and sold to retailers.

The USDA Office of Markets came into being in a pre-World-War-I world. That world was comparatively simple and orderly. So was the marketing system of the day. It was a system of a well-defined marketing sequence. Its successive stages came to be called strata, like layers or rock seen in geologic cross-section. The farmer sold his produce at the local market. It may have moved to a central assembly market and to a processor. At the other end of distribution it passed through wholesalers to retailers and then to consumers.

All strata, except one, generally featured many firms. There was alarm in 1913 as to some "trusts" in the market system. It was largely confined to fear of large processors. Huge retail groups or chains were yet unknown. Railroads, as monopoly supplier of transport, had been brought under ICC regulation.

That may not have been the most efficient marketing system but it was visible and understandable. It also conformed to the democratic value of being easily accessible to everyone. It lent itself well to the marketing services then being developed to make it work better: market information, standardization and grading, quality inspection, market research, regulation of practices, and others.

TODAY'S market structure departs in many ways. It no longer is so clear and uniform. Instead it is scrambled. It is so heterogeneous that questions may be raised as to whether there any longer is a marketing system. Perhaps it will be necessary to refer henceforth to marketing systems.

Central markets for a number of products have given way to decentralization. Direct trading is widespread. Most recent arrival on the scene is vertical integration in its various forms, wherein traditional market stages may be telescoped in a single ownership or contractual arrangement.

Aided by legislation, cooperative marketing has expanded. Federal marketing orders and agreements offer a special form of group action in marketing. They are principally confined to fluid milk and to fruits and vegetables for fresh market.

Concentration among market firms has increased. It

has especially done so in retailing, and the center of market power has moved forward. Most retail chains of today do not yet celebrate their 50th anniversaries.

Market demand for farm products today conflicts as never before with the natural variability in their quality. Market firms want uniform quality in order to gain the economies of mass handling. Consumers themselves have become more exacting in their wants and preferences. All this gives a big push forward to the practice of buying by specification, which calls for precision, uniformity and dependability in quality.

CHANGES in market structure have double meaning. First, many run athwart the lack of orderliness inherent in agriculture—an agriculture of 3½ million independent farms selling their products intermittently and "as they come." Many of the changes in structure are attempts to meet today's needs in marketing within the context of that kind of agriculture. Yet in doing so a second concern arises. For the new structure, while perhaps resolving old problems, may itself introduce new ones. These are problems of how to service a new market structure as well as was done for the old. They also are problems of safeguarding the interests of all parties as effectively in the future as in the past.

Certainly a changing market structure calls for flexibility in services to it. Many services must be modified. Many are being modified. When some markets were decentralized, market news reporters made more use of the telephone or were put on wheels. When "quality" came to reflect not only the preferences of consumers but also how well products lent themselves to mass handling and new processing, grade standards were modified appropriately.

Still, hardest of all are the problems of retaining accuracy and equity in the price-making function of marketing. How can the interests of farmers, for example, be protected in an increasingly power-centered market? Should that power be restrained, or should farmers be helped and encouraged to enter into bargaining arrangements and thereby meet power with power? And what about the interests of consumers, who also are interested parties?

Much contractual marketing by-passes traditional markets. Should market services be converted to servicing in contract-making? Or ought steps be taken to ensure that customary markets, open and freely accessible to all, be preserved? A case can possibly be made for sustaining, where feasible, open-market pricing in preference to the various kinds of administered or contractual pricing which can replace it.

In other words, a changing market structure requires changes in services but it also raises questions of helping to bring about the kind of structure which is best. This means assisting structural changes which are desirable, and resisting or offsetting those which are undesirable.

The centennial history of USDA marketing services to be written in 2013 will not lack for significant entries for the second 50 years. They probably will be interesting entries, too.

(The author is Economist, Office of the Administrator, AMS.)

What Marketing Costs Us



By Forrest E. Scott

CONSUMERS spent about \$63.2 billion in 1962 for domestic farm foods. Farmers received \$21.3 billion of it. These estimates include food sold in restaurants. The bill for marketing these foods sold to civilian consumers in this country totaled \$41.9 billion in 1962, about 11 times the marketing bill in 1913.

What factors are accountable for this huge increase? One is a growth in the volume of products marketed. The second, an increase in marketing services per unit of product. The third, and most important factor, has been the upward movement in wages and transportation charges and in prices of the many goods and services marketing firms buy.

For several reasons, commercial marketing channels are handling more foods now than in 1913. Civilian population nearly doubled—from about 97 million in mid-1913 to 183 million in mid-1962. Moreover, many farm families which had produced a considerable part of their food supply moved to nonfarm homes where they buy most of their food. Both farm and nonfarm families produced a smaller share of their own food in 1962 than in 1913. Also, farmers have marketed a decreasing proportion of their output directly to consumers since 1913.

The increase in marketing operations per unit of product handled resulted in part from more sorting, grading, transportation, refrigeration, processing, packaging, and other marketing operations. Another part of this increase resulted from the higher proportion of food served in restaurants and other eating places, particularly during the first half of the 1940's. Since 1945 away-from-home eating apparently has increased slowly.

The rapid growth in the output of new, highly processed convenience foods has helped to increase the food marketing bill, but not as much as one might suppose. These foods still account for only a minor part of the volume of food products marketed. Furthermore, costs of the additional processing may be offset by savings in other parts of the marketing channel.

It costs less, for example, to market a carton of oranges in the form of frozen concentrate orange juice than as fresh oranges, because savings in transportation and handling more than compensate for the costs of processing. Similarly the increase in consumer-sized packaging by food manufacturers has reduced handling costs in retail stores. Savings resulting from transferring packaging from the store to the manufacturing plant, where it is performed mainly by machines, have at least partially offset the costs of containers.

Though some marketing services have been increased, others have been reduced. Self service has largely replaced clerk service in retail food stores. And fewer stores

provide credit and delivery service than in 1913.

It has been possible to estimate three major components of the marketing bill: labor costs, charges for intercity transportation and corporate profits. These three components made up 61 percent of the marketing bill in 1961 and 64 percent in 1939. These estimates are not yet available for 1962 and for the years before 1939.

Labor costs—the largest component of the marketing bill—increased 350 percent from 1939 to 1961. This increase, however, was smaller than that in the marketing bill, which rose 381 percent. Labor costs, like the other components, increased partly because of the volume of products handled. Much more of the increase, however, resulted from a rise of more than 150 percent in labor costs per unit of product.

The steady climb in employees' hourly earnings and fringe benefits accounted for most of the rise in unit labor costs, though the addition of marketing services per unit of product accounted for a small part. Gains in productivity kept unit costs from rising as much as employees' earnings. Earnings of these employees have increased at about the same rate as those of employees in other lines of manufacturing, wholesaling, and retailing.

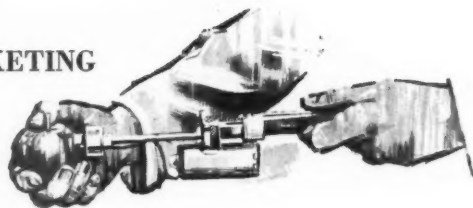
Payments to railroads and motor carriers for intercity transportation of food products covered by the marketing bill increased 330 percent from 1939 to 1961. They accounted for 10 percent of the marketing bill in 1961, a slightly smaller proportion than in 1939. Rate increases accounted for the major part of the rise; increases in volume accounted for a smaller part. Also, average length of haul increased for some fruits and vegetables and perhaps for some other products.

Profits earned by food marketing corporations amounted, before taxes on income, to about 5 percent of the marketing bill in 1961. Profits rose by a much larger percentage from 1939 to 1961 than either labor costs or transportation charges, but profits after income taxes increased by a much smaller percentage. Federal income taxes took about half of the total profits earned by food marketing corporations in 1961. Corporate profits, unlike labor and transportation costs, have not risen steadily since 1939.

After-tax profits of food marketing corporations, measured as a percentage of sales, have been smaller in recent years than in the late 1930's. However, their after-tax profits, measured as a percentage of stockholders' equity, have been larger in recent years than in the earlier period.

Total profits of food marketing corporations have increased as the capital invested by these corporations has grown. Marketing firms have made big investments since World War II to handle the expanding volume of products, to improve efficiency, and to produce new products.

(The author is an Agricultural Economist, Marketing Economics Division, Economic Research Service, USDA.)



Maintaining Agricultural Products In Top Condition

By Omer W. Herrmann

FOR many years one out of every five acres of perishable agricultural products was lost through waste and spoilage after harvest. Such losses resulted in higher prices for consumers and less income for farmers and everyone else in the marketing process. There were few solutions to these problems 50 years ago. But in the interval since, a growing number of private and government agencies have joined forces to develop practical methods to reduce such needless losses in valuable food and in farm income.

One example of the kind of work done and underway: Apple scald, a disease of the skin of the fruit, for years probably caused more losses in the market than any other one disorder. A little over 40 years ago a partial solution for this condition was found with the use of oiled wraps. However, control was not perfect and researchers continued looking for better methods. Within the last few years new scald inhibitors have been developed which promise to eliminate this disorder from the market place.

Equally important progress was made in cutting down losses in another popular fruit—oranges. Countless perfectly good oranges were wasted in past years because no one knew how to prevent surface pitting. Today, this problem is easily controlled by regulating the temperature at which oranges are held after harvest—a procedure perfected through private, State, and Federal research. Grapefruit are also protected from surface pitting by

temperature control.

Private firms, trade organizations, the extension services and experiment stations of the States, and Federal agencies have not only cut obvious waste and expanded markets for farm products, but have helped overcome large hidden losses in the vitamin content and other nutrients of perishable foods.

For instance, when oranges were first used for frozen juice concentrates, new problems arose common to all frozen foods. Many truck trailers, railcars, and retail display cabinets were unable to maintain low enough temperatures to keep frozen foods in top condition for very long periods. Today, thanks to a combination of private and government research, modern freezer equipment can keep frozen foods at the ideal zero temperature. And, as a result, frozen foods today keep longer, taste better, and are richer in vitamins and other nutrients than they were in the infancy of the frozen food industry.

The same improvements were made in fresh fruits and vegetables through research which led to the use of hydro-cooling, vacuum cooling, and other precooling procedures. Development of these procedures was essential to the expansion of farm markets for many products. As a result, farmers not only have larger markets, but their produce brings better prices than would otherwise be possible.

Although food is the most important class of agricultural

products, marketing researchers did not neglect others. Woolen products became more appealing to homemakers after new treatments were perfected to make it possible to store woolens with greater safety from moths. Development of new chemicals also gave tobacco better protection from insects that share man's fondness for cigarette and cigar tobacco.

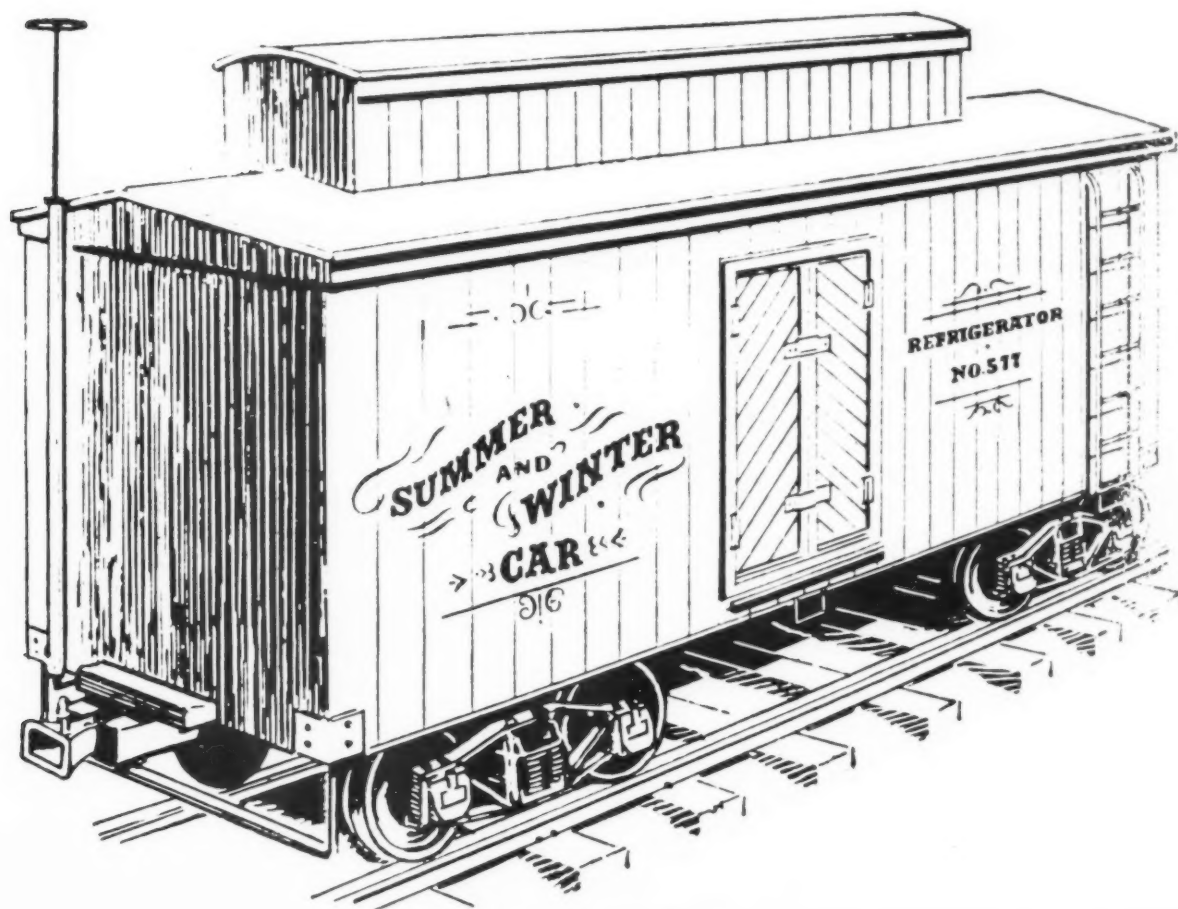
Consumers decorate their homes and grounds with longer-lasting cut flowers and sturdier rose bushes, thanks to research in marketing channels that makes it possible to give greater protection to these items during shipment. These results were achieved through the use of better cooling methods for cut flowers and through film wrapping to prevent drying of roots of bushes.

Convenience services also are offered to consumers as a result of research on new food packaging methods. For instance, unusable portions of vegetables, such as the tops of carrots and sometimes the outer leaves of lettuce are removed before wrapping the produce in plastic bags. Fiberboard containers are also being used more often,

reducing the shipping weight. Such services help hold down the cost of transportation—and hence the price of food. Previously most produce was shipped in heavy wooden crates; carrots, lettuce, and radishes were not trimmed, and they were not preweighed and placed in handy consumer-sized bags. The new techniques supply these services and also cut down on waste and costs. One of the biggest advantages of plastic film liners in boxes is to lengthen the storage life of pears, apples, and sweet cherries. Consumers can therefore buy these products over a longer period.

The most important achievements of a half century of marketing research—and examples of how these achievements were made—are only a part of the story. The greatest monument to the influence of this research on the Nation can be seen in the succeeding generations of Americans who have grown up healthier, taller, and huskier as a result of their better diets.

(The author is Deputy Administrator, Marketing Research, AMS.)



An early refrigerator car



Mechanical Thumb

Instruments Measure Hidden Quality

By John N. Yeatman

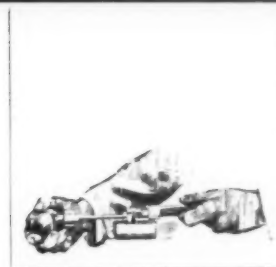
GRADES and standards for farm products, developed over the last half century, permit long-distance trading without personal inspection of products and guide consumers in selecting quality they desire.

The grades and standards now in use are partly the result of some of the most basic research of this century, much of it by USDA's Agricultural Marketing Service.

Little was known about the factors governing texture, color, freshness, ripeness, nutrient content, and many other quality factors of food 50 years ago. Although commodity specialists and researchers are still discovering new in-

formation about these factors, they gathered a large body of information essential to the development of virtually all the standards now in use. One exception is the Babcock test for butterfat in milk, which was used long before most of the present quality tests were devised.

In addition to providing the background of knowledge on which present standards are based, researchers often developed testing, sampling, and other evaluation instruments for use either in the laboratory or in the market. The tenderness of peas is measured with a device called



the tenderometer, and the firmness, or ripeness, of apples is determined with a Magness-Taylor pressure tester, or its modern successor, the mechanical thumb.

These instruments enable the processor, working with the farmer, to determine when a commodity is at its best stage of ripeness—and when it will bring the highest price. And just as important, the devices remove subjective judgments that can vary among inspectors. The devices can also reduce the cost of testing, since they are often capable of performing faster than humans, and with greater accuracy.

Grain and seeds can be counted, and imperfect ones detected in a matter of a few minutes with instruments recently developed. One device can count up to 750 kernels of grain per minute. Another, termed a grain ninditor, detects insects hidden inside kernels of grain. A chemical process, using indoxyl acetate, detects broken seed coats of beans and grain, making it easier to separate damaged products. Without these methods from research laboratories, testing and grading would be a much longer, tedious process. Other research instruments have brought the same time-saving advantages to the peanut industry.

Tomatoes used for juice and other strained products can also be judged more accurately with the Tomato Colorimeter, an instrument that solved one of the hardest tasks of a vegetable inspector. The device, described in the November 1962 issue of *Agricultural Marketing*, cannot be fooled by differences between internal and external color, and relates the quality of the raw tomato closely to the quality of the processed product. Cherries, lemons, and

apples can also be sorted rapidly with automatic color-sensitive instruments.

Research has also led to the development of better varieties of fruits and vegetables. As a result, the potato industry has been able to breed varieties more suited for making potato chips. Research helped the industry find the kind of potato it was looking for by determining the effect of potatoes' starch and sugar on the processing quality.

In the last few years, researchers have been experimenting with new quality evaluation tools that may influence food standards as much in the next 50 years as they have in the last half century. New measuring methods of the future may involve the use of x-ray, gamma ray sources, atomic energy devices, and light transmittance instruments. Already, scientists are working on a device that measures natural radiation to determine the amount of fat and lean composition of pork and poultry.

New instruments that can "sniff" small quantities of a product and accurately determine its quality are also under study. This technique is known as gas chromatography. It is being used by the USDA and many State agricultural experiment stations in flavor research with fruits, vegetables, and processed foods.

With these devices, and many more yet to be developed, researchers can provide even faster, more accurate, and more uniform ways to measure the quality that consumers want in food and other farm products.

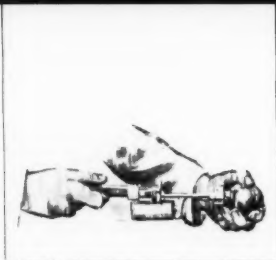
(The author is Supervisory Food Technologist, Market Quality Research Division, AMS.)



Difference Meter



Tomato Colorimeter



A NATION ON THE MOVE

By John E. Clayton

MANY people can remember when an orange was a special treat reserved for occasions such as Christmas. Fresh fruits, vegetables, and meats were available to most people only in certain seasons. But with today's nationwide transportation network, a wide range of fresh products is available every day.

Research by Federal, State, and private organizations during the last 50 years has played an important role in shipping food great distances without serious deterioration or prohibitive cost. As a result, the consumer may buy fresh lettuce grown 2,500 miles away, but almost as fresh as though she picked it out of her own garden.

Research has brought improved technology and increased choice of shipping methods—the outstanding accomplishments in transportation. These areas of progress are related and their impact has been widespread.

Better cooling methods keep food fresher, and better loading patterns bring maximum benefit from modern refrigeration equipment. Better loading methods also have reduced injuries to fruits and vegetables and cut down on decay and disease of fresh products.

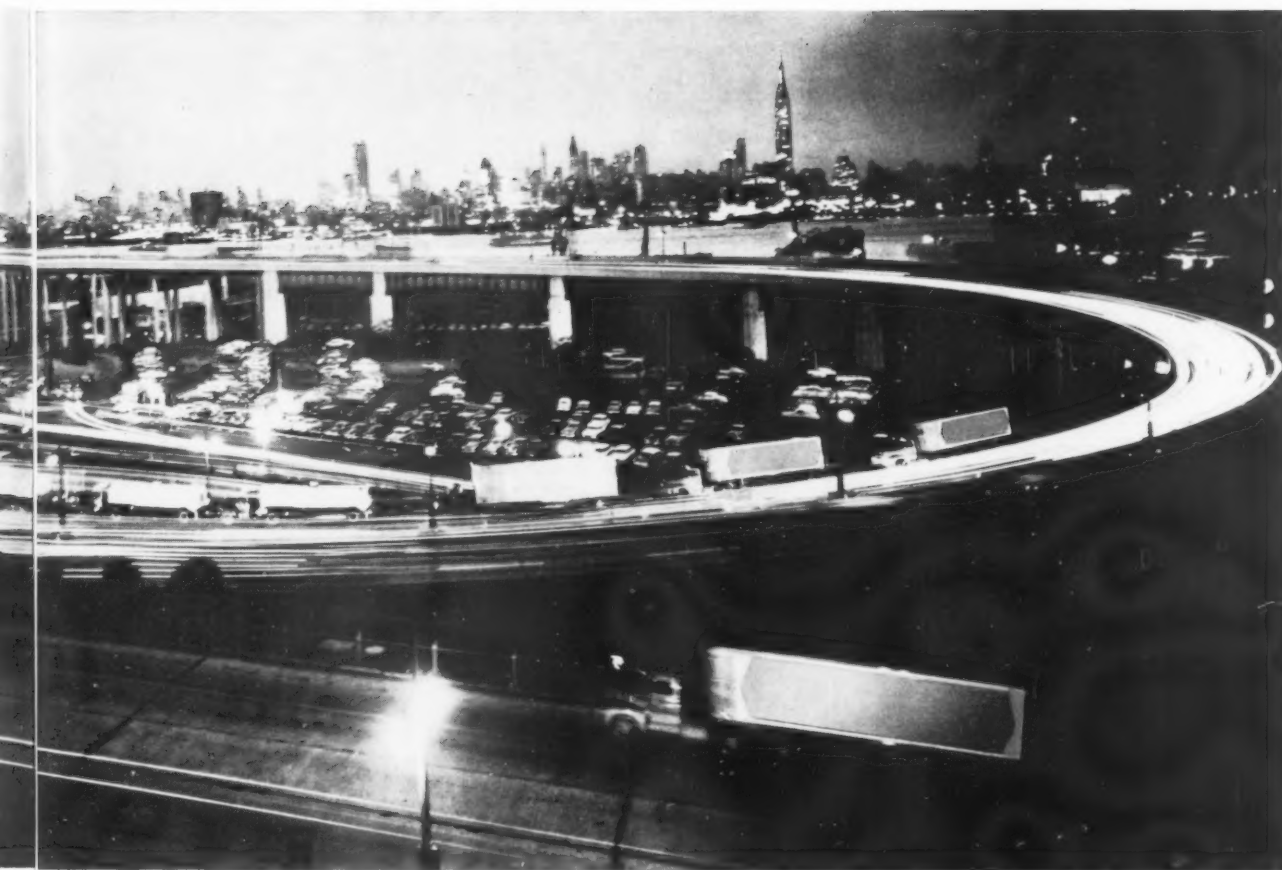
Lower costs and door-to-door delivery for retailers and wholesalers were made possible by increasing use of trucks. However, full exploitation of the motor vehicle would not have been possible without the rapid expansion of the State primary highway system during the last 50 years. The 41,000-mile National System of Interstate and Defense High-

ways, completely planned and partly constructed, will bring additional development of the trucking industry.

The airplane is another outstanding technological development in transport which is a product of this half century. From the timorous Kitty Hawk of 1903 to the self-confident super jets of today is a technological accomplishment almost unbelievable except in the seeing. From New York to the West Coast in less than five hours. Imagine! Fifty years ago, people thought they were traveling fast if they went the same distance in a week. And now we are seriously considering a plane which will travel 2,000 miles an hour and more.

Air transport reaches three-fourths of American cities with a population of 10,000 or more and many smaller ones. This service is provided by trunk, local-service, and supplemental air carriers and a number of other air transport firms exempt from economic regulation. Most of them haul both passengers and cargo, but a few carry only cargo.

Air cargo transport has had most of its development since World War II. It did not appear too promising in the beginning, but more recent developments indicate that it has significant potential. Planes built especially for cargo promise line-haul cost reductions which should permit lower rates and wider markets. While still a small proportion of total intercity ton-miles, air cargo volume has increased significantly in recent years. The list of commo-



ties which move by air is growing longer and longer, ranging from orchids and fresh strawberries to airplane engines and self-powered golf carts.

Rail transport, too, has improved its technology in the last 50 years. The diesel-electric locomotive is an outstanding improvement. By the 1960's the more efficient diesel had almost completely replaced the steam locomotive on American railroads.

Centralized traffic control, automatic train controls, and automatic classification yards are other technological improvements which have meant better service at the same or lower cost, benefiting rail transport firms, users, and the general public. These are but a few rail transport improvements. Many more can be expected as a result of recent ICC and Supreme Court decisions freeing rail lines to reduce costs and offer faster service.

Other transport developments which this half century has brought can only be mentioned in this article. Piggyback, fishyback, and other techniques combine the advantages of trucks, trains, ships, and planes. Transport improvements such as automation, containerization, palletization, unit handling and loading, refrigeration, and better loading methods have brought a greater variety of goods to consumers in better condition and, in many instances, at lower transport costs.

Many of these transport improvements have affected the flow of agricultural products from the farmer to the

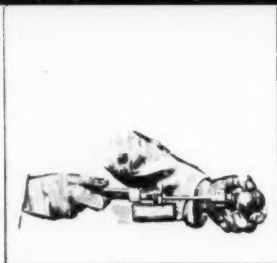
consumer. Agricultural products move by truck, train, barge, ship and plane from the farm to consumers throughout the Nation and to consumers in a number of foreign countries.

Fresh fruits, vegetables, and meats can reach the tables of almost every American family—almost every season of the year—because of the better transport technology and techniques already outlined. Despite competition, the different modes often coordinate their services to supply the Nation with fresh food. The result is a richer life for Americans.

Research conducted by the Agricultural Marketing Service and other agencies has contributed greatly to better transportation of agricultural commodities. It promises to help farmers expand overseas markets as it has helped them expand their domestic markets. A recent example is the successful completion of a coordinated shipment of fresh Florida grapefruit in a refrigerated trailer to Basel, Switzerland.

As much can be done for many other farm products in abundant supply, with the application of additional research. With such possibilities, there is no reason why progress in the next 50 years will not be as revolutionary as that of the last half century.

(The author is Chief, Transportation Research Branch, Transportation and Facilities Research Division, AMS.)



BETTER WHOLESALE FACILITIES

By Robert L. Holland

WHEN a Nation's population doubles in 50 years, as ours has, it's bound to have some pretty big growing pains—some of them caused by the problems of providing adequate facilities to handle the tremendous increase in food moving from America's farms to its consumers.

Fifty years ago a large share of our food was produced close to the areas in which it was consumed. Most people in small cities and rural areas had gardens and persons in larger cities depended upon nearby truck farms. Meat was slaughtered in these same areas. Poultry was sold alive, the housewife often killing and dressing the birds herself. Although the producer and the consumer frequently dealt directly with one another, most fresh products were available only a few weeks or months during the year.

Most food supplies were produced locally and hauled on the growers' wagons to nearby cities, most of which considered it one of their functions to provide a market, complete with market house, a "market master" and space for farmers to sell from their wagons. Remnants of many of these can still be found in many cities, but the volume of food they handle represents only a negligible part of the vast tonnage required to feed today's population.

As the cities grew, it became more difficult for housewives to visit the traditional central market when shopping. Then convenient neighborhood retail stores sprang up and the proprietors became the principal shoppers at the public markets. Operators and producers doing business in the public market then became wholesalers and jobbers, and the traditional retail market became more important as a wholesale outlet. Some, such as Faneuil Hall market in Boston, are still in operation. However, many of these markets eventually dropped their retail business almost entirely.

Since they were designed and located to serve the needs

of turn-of-the century retail trade, the traditional markets could not efficiently handle the volume of business that now came to them on the wholesale level. But there they were, and the buyers were in the habit of using them to purchase their supplies. There was no other place for a retailer to go, and a growing number of consumers paid more for the handling of food as a result. Adjacent buildings of all types were taken over by food wholesalers to meet the need for additional space, and congestion and inefficiencies multiplied.

On top of these problems, increasing quantities of supplies began to arrive in the cities by rail, and later by truck, from great distances. Although modern transportation made it possible to bring fresh products the year round by reaching out to distant warm climates, consumers still paid a high premium for food handling in markets designed for access only by horse and wagon. Cartage from rail tracks to the markets, and the use of larger trucks, added more and more congestion.

Nevertheless, tradition had been established, and retailers wanted to make their purchases in an area with the greatest selection of products and quality. They also wanted to choose from a selection in an area where prices were established. As long as the buyers insisted on a central market place individual wholesale operators were reluctant to move to more efficient quarters.

Group action by all the wholesalers would be necessary, but there was no unanimous urge to move to efficient, well-designed facilities until competition developed. Chain stores helped to break the grip of tradition by abandoning the central markets. They led the way to lower handling costs by going directly to the same sources of supply used by the wholesalers in the old markets. Other chains were formed and more modern, well-designed warehouses were



An early wholesale facility

built at locations outside the traditional market areas.

Independent retailers began to organize into buying groups and purchase through their own warehouses or from other established wholesalers in order to meet the competition from the chain stores. In other cases, wholesalers organized groups of independent retailers from whom they would take orders and provide delivery service. Thus the service wholesaler was born.

The trend of the voluntary chain warehouses and the service wholesalers was to locate their facilities away from the old central market district. Competition between the new and the old markets grew to the point where trucks began to pass up the old markets. The competitive strain forced the operators in the old markets to look for more efficient operating conditions.

The transition began in the late twenties and has been moving at an increasing rate ever since. With the help of researchers in Federal, State, and municipal agencies, many new markets have started construction or have developed well-advanced plans.

Facilities in rural areas have made equally important progress with the help of research. As a result, packing plants, processing, and storage facilities now provide additional services in producing areas. These services include packaging, portion control, and precooking, among others that can be offered efficiently in the producing area.

When perishable products began to move greater distances, much more attention had to be given to grading and packing. Fifty years ago field products were hauled to nearby markets in bulk or in almost any kind of container that could be found. Today most products moving any appreciable distance are carefully graded and packed in containers developed through research.

The consumer nets tremendous savings because waste,

inedible portions, and by-products are not transported great distances unnecessarily. And the farmer gets higher prices for higher quality products now reaching consumers.


Today's modern city produce markets are places where supplies arriving by rail or truck from every part of the country can be unloaded directly onto the sales floors of buildings designed by researchers for the utmost efficiency. For example, the floors of these buildings are at the height of the floor racks in refrigerator cars and truck beds, reducing the time and cost of unloading and loading—with modern handling methods and equipment developed by government and private researchers.

The interiors of modern market facilities have been designed for the proper display, storage, packaging, and sales of products—many having greatly different handling requirements. Streets are wide and parking areas are adequate for the prompt and efficient handling of traffic. A complete line of food products can move through such facilities at minimum cost, in minimum time, and with a minimum of deterioration and spoilage. Modern labor-saving devices such as conveyors, pallets, and lift trucks are widely used today in these markets.

Research, much of it conducted by USDA's Agricultural Marketing Service, has played a large role in the development of wholesale markets from a simple to a highly complex system that requires the most modern communication, transportation, and handling techniques.

The modern facilities used in more and more wholesale food markets help provide 188 million Americans with food at a price and quality unrivaled anywhere else in the world or in any other period of history.

(The author is a member of the Marketing Facilities Planning Staff, Transportation and Facilities Research Division, AMS.)



THE MODERN SUPERMARKET— AMERICA'S TRADEMARK

By Raymond W. Hoecker
and Dale Anderson

IN fewer than 50 years the retail food market has become one of the most distinctive features of the American landscape. Supermarkets are as American as Disneyland. Foreign dignitaries from Queen Elizabeth to Premier Khrushchev have visited them and expressed awe at the variety and quantity of foods displayed. And because American food markets are operated more effectively and at lower cost than any others in the world they have been given the ultimate flattery of imitation in most foreign countries.

Distinctive American retailing began with the trading post, and then the general store, which stocked staple food, mercantile goods, hardware, and farm supplies, and represented an earlier version of the one-stop shopping center today. As the population increased, specialized grocery stores, meat markets, produce stores, and specialty shops developed. These stores offered personal clerk service, furnished credit, took telephone orders, and delivered to customers' homes. Merchandise was stocked on shelves which reached the ceiling and was intentionally made inaccessible to customers. This was the day of personal





selling. Only a few hundred items were carried and many of these were bulk items weighed for each customer.

Self-service stores existed in California as early as 1912, but they did not win national acceptance until Clarence Saunders developed his chain of Piggly Wiggly stores. Foreshadowing the success of today's supermarkets, the Piggly Wiggles expanded to 2,700 stores in 41 States before they were sold in 1928.

Early in the 1930's a new type of market developed. "Cheapies" blossomed in low-rent locations, with merchandise piled up everywhere in the crudely furnished stores. Then the forerunners of our present supermarkets stole the thunder of the "cheapies" by offering similar low-profit pricing practices and more self-service features—and attracted more customers by operating in more attractive stores in better locations.

Supermarkets surged forward in the 1950's. Their share of grocery sales increased from about 43 percent then to over 70 percent of the Nation's retail food business in 1962. The average supermarket stocked about 6,000 items, in contrast to fewer than 500 items in the store of 50 years ago. And today's "discount house" may carry more than 20,000 items—more than half nonfood—completing the cycle back to the one-stop general store, the great-grand-daddy of the modern shopping center.

Many independent food store operators have now affiliated with wholesale suppliers. This step has enabled many of them to equal or surpass the corporate chain store in prices and scale of operation. As a result, lower priced food became available to more consumers.

In 1947, about 29 percent of the total food store sales were made by affiliated independents. By 1962, this had increased to 49 percent. The affiliated independents either formed a cooperative group, who then operated a warehouse cooperatively, or joined a voluntary group sponsored by a wholesaler. In either case, their subsequent operations became very similar to those of the corporate chain, with the exception that the outlets were owner-operated. The affiliated group thus retained the powerful incentive of individual ownership.

The change in food wholesaling has been of more recent origin. While the chains had developed fairly efficient warehouse systems, the independent wholesaler was slow to change. The average grocery wholesale mark-up, which ranged from 10 to 12 percent after World War II, in 1960 ranged from 5 to 6 percent, or a 50 percent reduction. This saving has resulted from improved sales, warehousing, and delivery methods and the development of wholesaler-retailer teams known as voluntary and cooperative groups.

The USDA's Agricultural Marketing Service helped bring about these changes through research and service. Trade associations have been particularly effective rallying points for exchange of cost-reducing marketing ideas. And trade publications in the food distribution field have played an important part in research programs that provide more effective merchandising or operational efficiencies.

The distinguishing feature of supermarkets—the self-service concept—could not have been established without food preservation and packaging. Research by the USDA and State universities contributed substantially to this

development. In recent years the Federal-State Extension Service has also been active in a number of States, providing service and advice, especially to retail groups too small to conduct their own research.

Government researchers and food firms have worked closely together to hold down food costs. This research has been quite effective in two ways: (1) the adoption by industry of the research findings has resulted in cost reductions of up to 25 percent in each department in the supermarkets, and (2) a number of major firms have adopted the research approach and established research departments of their own for continuing programs of internal improvements.

During the last 12 years unit marketing charges have increased 38 percent. However, most all of the component unit costs making up marketing charges have increased substantially more. For example, labor, which accounts for about 50 percent of marketing costs, increased its hourly earnings 85 percent during the same 12-year period. If labor costs per unit of product marketed had increased at the same rate in the 1950's as hourly earnings, the total annual labor bill for marketing food would have been up an additional \$7 billion dollars—which consumers would have had to pay.

(The authors respectively are Chief and Member, Wholesaling and Retailing Branch, Transportation and Facilities Research Division, AMS.)





A BEACON IN THE MARKETPLACE

MARKET INTELLIGENCE

By George R. Grange

THERE was a time when "Good Ol' Charlie" was the hero of the Western livestock industry. Ol' Charlie was a cattle buyer whose "benevolence" endeared him to cattle producers far and near. Charlie was the buyer who always paid top dollar for the cattle he bought—or at least a little more than the previous buyer offered. But Charlie's apparent concern for the well-being of his fellow men was all part of a shrewd, calculated business operation.

Two or three days before Charlie started his rounds in a particular cattle-producing area, he'd send out his "advance man" who would offer producers a price he knew was two or three dollars less than the current market price for their stock. The cattlemen, figuring that such an offer was too low, would reject it. Then Ol' Charlie'd come riding through offering a whole half-dollar more than his advance man had offered. In view of the previous price, Charlie's looked pretty good and his offers were seldom rejected.

About the only market price information available in Charlie's day—some fifty years ago—was the limited amount published in local newspapers, and the few reports issued by commercial reporting agencies. These were usually limited to specific commodities in specific areas and by the time the reports were widely circulated they weren't really news anymore.

It wasn't until after the turn of the century that the





Nation's agricultural industry began to feel an acute need for timely and reliable marketing intelligence. Prior to that time, agriculture had concentrated its energies and resources on solving the problems of production—learning to produce more and better crops. By the early 1900's, these efforts had literally begun to bear fruit—farmers were producing more and better crops. With increased production and more consumers, the agricultural industry began to concentrate more on the problems of getting its product to the buying public.

The U. S. Department of Agriculture, in an effort to meet demands for more and better market information, began to study the Nation's marketing system in 1910. This early research led to the establishment of the U. S.'s first official marketing agency—the USDA's Office of Markets—in May 1913. Less than two years later, the Office of Markets had established a basic plan for what was to become the most comprehensive and reliable marketing intelligence system in the world. In March 1915, the first official market news report carried the prices paid for the season's first strawberries from Hammond, Louisiana.

Today's Market News Service, operated by USDA's Agricultural Marketing Service, consists of more than 200 field reporting offices located in every significant agricultural producing area, in most major terminal market areas, and in the Nation's leading food distribution centers. From that strawberry report issued at Hammond, Louisiana, the Market News Service's list of commodities has grown to include dozens of fruits and vegetables, cotton, tobacco, livestock, meats, wool, dairy products, eggs, poultry products, naval stores, and grains and feeds. Coverage ranges all the way from central markets like Chicago, Minneapolis, and Omaha to the larger food distribution centers like Los Angeles, New York, and Boston—to production area markets at the feedlot, the ranch, the orchard, the country buying station, the local livestock auction market, and country processing and assembling plants.

Coverage of the Market News Service has been extended

even further by the development of Federal-State cooperative reporting programs. Under these arrangements, reporters of the State departments of agriculture report the various markets, while the Federal service aids in maintaining national uniformity of terminology, grade interpretation, and reporting procedures. Uniformity is extremely vital if the reports are to mean the same thing in all areas of the country.

From its very beginning, the purpose of the Market News Service has been to provide accurate, timely information in a form that producers can understand. The service has the responsibility for collecting detailed current information on prices, supplies, and conditions in a particular marketing area, for exchanging that information with other areas, and for disseminating it to the public.

To fulfill that responsibility, one or more market news reporters are stationed in every terminal market or production area with enough trading to warrant price reporting. These reporters "cover the market" by personally interviewing buyers and sellers, and obtaining information on sales and purchases, on volume, quality, and prices.

After reporters have completed their interviews the assembled information is compiled, analyzed, and distributed in concise reports to the producers, dealers, and other businessmen who need it.

To accurately analyze the assembled market information, the reporter must have a thorough knowledge of the type of business he is reporting, and of the buying and selling practices of his sources of information. Today's typical market news reporter is an agricultural college graduate who may have majored in marketing, or economics, or animal husbandry. In addition to his formal training, he may have had commercial marketing experience in the fields of inspection or grading, or he may have been associated with private or public agencies engaged in the marketing of agricultural commodities.

Of course, the best market report in the world is useless unless it is quickly and widely disseminated. In the early



days of market news reporting, mimeographed reports were the principal means of getting information to the trade. Anyone could get on the mailing lists to receive daily, weekly, monthly and annual reports simply by requesting them.

Thousands of people still receive these mimeographed reports, but today the market news men rely more heavily on mass media—radio, TV, and newspapers—which can get the information out faster to more people.

The key link in the market information chain is the 19,000-mile leased-wire teletype system operated by AMS. A market reporter in Chicago feeds his early report on receipts and prices into this leased wire network, and within minutes the information is on its way to all parts of the country. The report may be relayed immediately from the pickup points on the leased-wire system to radio and TV stations, to newspapers and trade journals.

Hundreds of broadcasting stations carry daily market news information. Hundreds of daily and weekly newspapers, as well as most of the trade journals, publish reports supplied by AMS and State departments of agriculture. Producers, shippers, processors and distributors are kept informed on the prevailing conditions in any or all of the principal marketing centers.

Who uses the hundreds of thousands of market news reports issued each year? And for what purposes?

Producers rely on them heavily to keep posted on current markets so they will know when to sell, and what to expect for what they sell. Dealers, too, use market reports to keep up with trends in prices, supplies, storage and movement of commodities, competitive outlets, and in developing contractual arrangements. Uniform and reliable market information, in many cases, eliminates need for haggling over each individual lot, and speeds the marketing process. When prices, supply, and demand are known for several alternative markets, producers and dealers can determine the most favorable time and place to sell and buy.

Railroads and trucking firms use market news reports to study shifts in types of transportation, and to determine how much service they'll need to provide. They use price reports in settling damage claims. Banks use reports in establishing their loan policies. Storage operations are planned on the basis of reported information. Hotels and restaurants are always interested in the commodities available, their prices, and the resulting effects on menus. Trade organizations and educational institutions use market reports for analytical studies and reports.

The original price information, after serving as a guide to day-to-day trading, becomes a part of the statistical background which can be used in short and long-range planning by farmers, processors, and all the allied industries which depend on the production and marketing of food and fiber. Market reports provide the basis for outlook and situation reports, crop and livestock reports, acreage guides, and consumption and utilization reports, which together provide the agricultural industry with the information needed to plan production of the Nation's food supply. They provide also the means for establishing a balance between production and market demand—for keeping the market stabilized.

If "Good Ol' Charlie" were around today, he'd probably find that doing business his way would be a little tougher than it was 50 years ago. The first time he offered a producer a dollar and a half less than the going market price for cattle, he'd probably be laughed right out of town. Although today's marketing system is vastly more complex than it was in Charlie's day, America's agricultural industry is likewise vastly better informed of the activities in the marketplace, a marketplace as farflung as the boundaries of the Nation it serves. But through the vital communications link provided by AMS's Market News Service, the conditions of the market are as close at hand as the telephone, the newspaper, the radio or the television set.

(The author is Deputy Administrator, Marketing Services AMS.)



ASSURANCES OF QUALITY FOODS AND FIBERS

Standards, Grades, and Inspection

By Roy W. Lennartson
Associate Administrator, AMS

American consumers now enjoy food as varied, wholesome, fresh and appetizing as you can find anywhere in the world.

This abundance, and the distances food moves to market, created the need for specific, uniform standards to measure quality, as the basis for establishing value and price—for producers, handlers, and consumers.

Quality Grades

Quality grades give buyers and sellers a common language. They were first established for wholesale trading, and extended to many foods at retail because the consumer, more than ever, wants to be sure she gets what she pays for.

With grading, she can select the most suitable item for a particular purpose—such as “AA” and “A” eggs for poaching and frying, and “B” eggs for cooking and baking.

Last year, more than 200 million pounds of butter were marked with retail grade labels. And most of the 4.5 billion pounds of poultry that was graded in processing plants bore the familiar USDA grade shield of quality when it reached the retail store.

Half our beef was graded, and about 70 percent of the fresh beef cuts sold at retail carried the Federal grade stamp. Inspection is required for most of the grain that moves in interstate or foreign commerce, and for tobacco sold at designated auction markets. Free Federal classing is used for most cotton.

Most of the voluntary grading services are available only on request and payment of a fee to cover the cost.

In the 1962 fiscal year, about 90 percent of frozen fruits and vegetables, 60 percent of the canned, and 85 percent of the fresh, were marketed under Federal-State grades.

Graded products included about 46 percent of all poultry marketed, one-fifth of the shell eggs, more than 80 percent of the liquid and dried eggs, 58 percent of the butter, 70 percent of the nonfat dry milk, 70 percent of the rice, 75 percent of the dry peas and 36 percent of the dry beans.

Inspection for Wholesomeness

Today, poultry and red meats in interstate commerce are Federally inspected for wholesomeness. Each year, about 25 billion pounds of dressed red meats are inspected by USDA's Agricultural Research Service. And about 8 billion pounds of poultry are inspected annually by USDA's Agricultural Marketing Service.

In a marketing system as complex and competitive as today's the standards—or “yardsticks of measuring quality”—and the procedures of grading and inspection are being continually evaluated and adjusted when necessary to conform to new products, new processing techniques, and more mechanized methods of marketing. Some of the highlights in the development of these services follow.

Meat

The U. S. Department of Agriculture began certifying the *wholesomeness* of meat in May 1891, at the request of meat packers, who needed it to meet the import requirements of foreign countries. This was the first U. S. food to receive such governmental supervision.

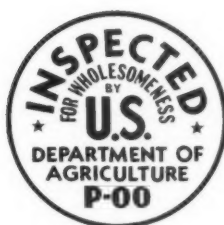
Beginning in 1906, packers preparing meat for interstate or foreign commerce were required to comply with very stringent rules for sanitation, post-mortem inspection of meat, destruction of condemned carcasses, and inspection of the canning and packing of meat.

Scientific advances over the years brought Federal inspection supervision of such new processes as fast cures, smokehouse tenderizing, and ultraviolet aging.

Inspection is now also provided for the slicing and packaging of sausage and loaf products in consumer packages, and inspection supervision of the preparation, packaging, and freezing of meat dishes, meat food products, meat cuts, prepared meals, and even cheeseburgers. Since 1941, USDA has required descriptive labeling to include ingredient listings for meat products.

Today, about 1600 slaughtering and processing plants are under Federal meat inspection, in over 665 cities and towns.

Beef was the first kind of meat for which *grade* standards were formulated in 1916. Largely through the efforts



—Through the Years

of the Better Beef Association, composed of 250 prominent breeders and feeders from all over the country, official standards were adopted in 1926. Since then grade standards have been extended to the feeder and slaughter classes of most market livestock—veal, calf, lamb, yearling mutton, and mutton.

Federal meat grading began in May 1927 in plants of four national packers. The big packers at first considered

it unworkable, but the demand grew fast as 33 smaller packers in 49 plants asked for the service that year. They were soon joined by others who realized that Federal grading allowed them to sell meat on the national market without an established brand name.

After four years of compulsory meat grading during World War II and two years during the Korean War the yearly volumes graded rose to new levels. In 1930, nearly 69 million pounds of beef was graded, only one percent of the national slaughter. By 1947 the figures were about 3 billion pounds, 28 percent, and in 1962, 7.5 billion pounds, about half of the commercial production.

USDA's Agricultural Marketing Service is constantly seeking to improve its meat grading services. Since July 1962, dual grading of beef has been available—measuring both yield and quality. This new service has been offered to the meat trade on an experimental basis, after 10 years of study.

Fruits and Vegetables

After meat, fruits and vegetables were the next foods to receive special attention from USDA with respect to quality. By the turn of the century, artificial ice and refrigerator cars were perfected, allowing produce to be shipped great distances. Without standards, the true value of produce was hard to measure, and disputes arose involving millions of dollars, among producers, buyers, and freight companies.

USDA began marketing research in shipping of fresh fruit in response to urgent requests from producers and handlers, and in 1912 Congress passed an apple grading law. Several States passed similar laws.

The first major efforts to establish official U. S. grades were made with potatoes in 1917, soon followed by grades for tomatoes, strawberries, cantaloups, peaches, onions, sweet potatoes, cabbage and peanuts. All this followed passage by Congress of the Marketing Studies Act of 1913. In 1917 Congress established a terminal market inspection service to determine quality and condition of perishable farm products, covering 34 major cities. In 1919 this law was reinforced and extended.

All this was done only after exhaustive field trips to



Meat grading about 25 years ago



all growing sections, and after many local meetings and conferences with growers and handlers to resolve differences. In 1922 Congress gave USDA authority to certify the quality and condition of fruits and vegetables at country shipping points. This permitted USDA to establish voluntary standards for fruits and vegetables, and to conduct an inspection service at shipping points, as well as at terminal markets.

Some new standards have been set almost every year since the early 1920's. There are now U. S. standards for 76 different fruit and vegetable products—or 142 sets in all, taking into account differences in types and uses.

The three general types of U. S. grade standards for fresh fruits and vegetables are: (1) for wholesale trading in products packed in large packages in carload or truck lots; (2) packing and sale in consumer-sized packages; and (3) for a basis of contracts between growers and processors, on raw products for processing. Grade standards are also set up for processed fruits and vegetables; canned, frozen, dried and dehydrated products; and various processed foods, such as olive oil, peanut butter, jams, jellies, syrup, and coffee.

Dairy Products

The USDA butter grading service, set up under the 1919 act, was first used by a big Minneapolis creamery, then by a few other large distributors. After World War II, more local distributors began using the service.

Inspection and grading programs for cheese, nonfat dry milk, and other dairy products have been created and have gained wide usage over the years. Early this month, standards were issued by USDA for the first time, for instant nonfat dry milk, popular with weight-conscious consumers.

Eggs

Grading of eggs for quality was started by USDA just after World War I, as a special service to the Navy. USDA quality standards were developed in the 1920's.

Egg grading services grew rapidly under the system of Federal-State co-operative agreements, as had fruit and vegetable inspection at shipping points earlier. Personnel of State departments of agriculture assist USDA experts in their own States under these agreements. The first agreement on egg grading was with West Virginia, in 1928. Today, this service is used in almost every State.

Volume of eggs graded under this program jumped from 336,768 cases, or 0.3 percent of the national production in 1928 to 33 million, or 19 percent, in 1962.

Government purchases during and following World War II resulted in extending Federal inspection and grading into egg products, dried, liquid, and frozen, to assure purity and quality to the public. Today, millions of pounds are manufactured in more than 100 egg processing plants using the Egg Products Inspection Service.

Poultry

Dressed poultry was first graded by USDA around 1927. Grading of New York-dressed turkeys began on a large scale in 1930.

Grading of chickens increased rapidly after World War II with the tremendous growth of the commercial broiler industry in the South, now the center of the billion-bird industry.

Federal inspection of dressed poultry also began in 1927. This service was requested by a large soup company in the East, so it could meet Canadian import regulations for canned poultry. Only a few thousand pounds of New York-dressed poultry was inspected that year.

In 1947 inspected poultry totaled 226 million pounds; by 1953, over a billion pounds. In 1951, 155 plants were under inspection. The next year 100 more plants entered.

About 1955, public sentiment began to rise for compulsory poultry inspection for wholesomeness. Congress held many hearings, then passed the Poultry Products Inspection Act in 1957, which became fully effective January 1, 1959. Many special meetings were held with industry groups to perfect the regulations and resolve differences while hold-



ing to the intent of the law, which was designed by Congress to protect consumers. In 1962 about 6 billion pounds of ready-to-cook poultry were certified in about 900 official processing plants.

In recent years many new convenience-type poultry foods have been developed, such as chicken pies, TV dinners, and turkey rolls. Special inspection regulations have been developed by USDA's Agricultural Marketing Service to keep up with these new products.

Today a special type of grading service, known as an "acceptance service," is available to large-scale institutional users of poultry, eggs, meats, fruits and vegetables, and dairy products. This service assures buyers that they are getting products of the quality they specify in their contracts with suppliers.

Grain

The need for uniform standards for the various grains became obvious very early. Markets grew confused as the West was opened up and grain moved long distances to market, passing through several hands before processing into food products. Rough standards and grades were set up more than a century ago at major terminals like Chicago, by boards of trade, and chambers of commerce.

In 1871 Illinois established a grading and inspection system, and by 1916 similar action had been taken by eight other States. But lack of uniformity caused great confusion and conflict. Finally, after USDA had investigated the handling, grading and hauling of grain for many years, Congress enacted the U. S. Grain Standards Act in 1916.

This Act requires official U. S. inspection of all grain sold or shipped by grade between States or to foreign markets. The grains include wheat, corn, barley, rye, oats, grain sorghums, soybeans, flaxseed and mixed grain.

In a world market that's becoming more keenly competitive, supplying the quality that foreign buyers want is a must.

Cotton

USDA worked out standards for cotton just before World War I in response to requests from the trade. In 1914, Congress enacted the Cotton Futures Act, which required that these standards be used by traders in cotton futures. In 1923, the Cotton Standards Act was passed, which made the official U. S. Cotton standards compulsory in all interstate and export transactions that are based on standard descriptions.

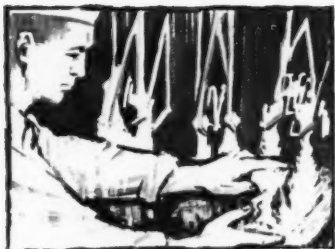
The Cotton Statistics and Estimates Act was passed in 1927 to provide data on cotton quality. It was amended in 1937 to provide for free classification and market news services for farmers. The number of bales classed under this program has increased from 84,000 or 0.7 percent of total ginnings in 1938 to over 14 million or 95 percent in 1962.

Tobacco

The tobacco industry also felt the need for Federal guides in grading and selling. In 1929, USDA was authorized by Congress to establish standards to classify tobacco, and in 1935 the Tobacco Inspection Act was passed. This offered mandatory and free inspection at designated tobacco auction markets.

These highlights of official standardization, grading, and inspection services have evolved hand in hand with the tremendous commercialization of agriculture—vast improvements in plant and animal breeds, feeds, fertilizer, disease, and pest control, transportation, refrigeration, processing, packaging, and merchandising.

The problems encountered in marketing our farm products 50 years ago has today been eliminated to a tremendous extent through these services, cooperatively developed and applied by America's 5½ million people who grow farm products, and 10 million who market them. The result has been a more smoothly and efficiently-operated marketing system, the value of which is shown in the American consumer's vote of confidence in the products she buys.



SAFEGUARDS IN OUR MARKETS

Orderly Marketing In A Changing World

By Clarence H. Girard

REMEMBER how you once enjoyed looking inside an old-fashioned kaleidoscope? The mirrored pieces of colored glass always reflected a regular pattern of beautiful colors and fantastic shapes. But turn the kaleidoscope . . . The patterns and colors change—still orderly—but into entirely new patterns, unrecognizable in relation to the former shapes.

The marketing of agricultural products has had numerous kaleidoscopic evolutions within the past 50 years—orderly but inexorable. The constant interplay of quantity and demand maintain a type of order within agricultural marketing, but new methods of production, changing tastes of consumers, evolving social and economic norms, all tend to twist and warp the very fiber of the market structure.

Always orderly, but inexorably changing. This is marketing as we have known it over the last 50 years. For many years the American farmer has confronted adverse changes with determination—and used beneficial changes to the best advantage. Perhaps for this reason—if for no other—he has the reputation of being the last of the true individualists.

There are two basic means by which orderly marketing is maintained in our Nation—means which not only keep order but also are capable of changing to meet the growing

needs of a growing Nation. One is the so-called “regulatory” statutes which have been passed by Congress to guarantee “fair play” in agricultural marketing. The other is marketing agreements and orders, which are “self-help” programs by which producers and handlers of agricultural products can protect themselves in the marketplace.

“Regulatory” statutes are laws passed by Congress which contribute to orderly marketing by safeguarding individual rights, supervising marketing practices or assuring honesty in dealing. The regulatory programs establish rules of fair business practice in marketing and help to preserve the free and open competition upon which our economy is based.

Many of these statutes are as old or older than the first Federal marketing agency. One of these is the Federal Seed Act—a truth-in-labeling law—which traces its antecedents back to the original Seed Importation Act, passed in 1912. The present Seed Act, which was passed in 1939, requires proper labeling of seeds and prohibits low quality seed from interstate and foreign commerce. This is done to protect the interests of both farmers and individual homeowners.

Another regulatory statute is the U. S. Warehouse Act—passed in 1916—which provides assurance of safe storage for farm products, and preservation of the integrity of

warehouse receipts. Under this Act, more than 1,800 public warehouses are licensed, bonded, and supervised, to foster economic marketing of agricultural products.

One of the most important of the regulatory statutes is the 42-year-old Packers and Stockyards Act. This Act, which was passed by Congress to provide for more orderly marketing in the livestock and packing industries, is not only a fair-business-practice and antimonopoly law (somewhat like the Federal Trade Commission Act) but also is a "public utilities" law.

As a fair-business-practice and antimonopoly act it provides for investigation of alleged restriction of competition and price manipulation and discrimination in livestock, poultry and meat marketing. The investigations, done by the Agricultural Marketing Service, normally are the result of complaints by livestock and poultry producers and handlers.

As a public-utilities type statute, the P&S Act provides for registration and bonding of livestock dealers and commission agents, maintenance of correct livestock and meat scales, and just rates at stockyards and auction markets for reasonable services and facilities.

Incorporated into the Perishable Agricultural Commodities Act (another important regulatory program) is an enforced code of ethics for the fruit and vegetable industry. This law (known as the PACA) is almost as broad an act in its field as the P&S Act is in livestock and meat.

Fruits and vegetables are highly perishable—so people in the fast-moving produce industry are especially dependent on the honesty and good faith of those with whom they deal. The PACA code is designed to protect the individuals in the industry from such unfair practices as unwarranted rejection of shipments, failure to pay, and misbranded produce.

As a means of enforcing the PACA code, interstate traders in fresh and frozen fruits and vegetables are required to hold licenses. USDA is authorized to suspend or revoke a trader's license for violating the Act.

Another means by which the kaleidoscopic agricultural marketing picture is brought into a meaningful pattern is through marketing agreements and orders. These are designed to improve returns to growers through orderly marketing. They are self-help programs, through which producers can work together to solve marketing problems they cannot solve individually.

Although the first marketing orders date back to the Agricultural Adjustment Act of 1933, which used the term licenses, these programs are now authorized under the Agricultural Marketing Agreement Act of 1937. This statute provides authority for an industry to develop regulations to fit its own situation and solve its own marketing problems.

The Act places final responsibility for such agreements and orders in the hands of the Secretary of Agriculture, who decides on all marketing agreement and order actions. His decisions, of course, are based on industry recommendation. Practically speaking, a marketing agreement and order program is a partnership between the Secretary and the industry.

A marketing order originates with the growers and handlers who will use it. If they feel that the marketing

order approach offers a way to attack their particular marketing problems, they draft a proposed program and ask the Secretary for a public hearing on it. The hearing gives everyone a chance to present their views. If the facts in the hearing record show the need for the marketing order, then the growers vote on whether they want the proposed program. An order may be issued only if the producers approve the program by a two-thirds or larger majority.

Producers in 27 States are now using 45 Federal marketing orders to maintain orderly marketing for fruits, vegetables, tree nuts and shade grown tobacco, by restricting the quantity or quality that can be marketed. There are also Federal milk marketing orders which establish minimum prices for producers in 83 of the Nation's major milk markets.

As a kaleidoscope changes, so does the agricultural industry. In any free society, an industry must change, indeed must welcome changes.

American agriculture has seen many changes in the last 50 years. Most changes have been beneficial, but some have taken their toll in men and in money. The American farmer has survived drought, depression, war and chicanery.

The American farmer stands today in a position envied by farmers throughout the world. Where he could not better his lot individually, he cooperated with others to do so. In confused situations growing out of changes—where unscrupulous persons could find means to profit at a farmer's expense—the American producer was (and still is) protected by Federal laws.

Through regulation to protect the producer, or through self-regulation to help the producer protect himself, American agriculture stands today ready to meet—and welcome—any change in the kaleidoscopic picture of today's world.

(The author is Deputy Administrator, Regulatory Programs, AMS.)

A capsule view of the broad scope of "regulatory" statutes in the field of marketing is provided by the following alphabetical listing:

Agricultural Marketing Agreement Act of 1937
Agricultural Marketing Act of 1946
Export Standards for Apples and Pears
Export Standards for Grapes and Plums
Federal Seed Act
Packers and Stockyards Act, 1921
Perishable Agricultural Commodities Act, 1930
Poultry Products Inspection Act
Produce Agency Act
Standard Containers Acts of 1916, and 1928
Standards for Apples in Commerce
The Naval Stores Act
The Tobacco Inspection Act
Tobacco Plant and Seed Exportation Act
United States Grain Standards Act
United States Warehouse Act
Wool Standards Act





USDA Food Distribution Has Long History of Special Roles

By Howard P. Davis

IN a country blessed with agricultural abundance, it is natural that efforts should be made to help provide needy and deserving people with more of the food needed for health and productive efficiency.

The unmet needs of these people have direct effect on the accumulation of "economic surpluses" that interfere seriously with the efficient operation of our commercial food marketing system. And, it is this commercial system upon which we basically rely to supply the great bulk of our food demands, to register our preferences as consumers, and to pass back to farmers an equitable return for their productive efforts. Where the Federal and State governments step in—whether in production, marketing or distribution—it is to improve the working of the commercial system in our farm and food economy.

Although we know that inadequate diets are found at all income levels for a variety of reasons, the greatest potential for increasing food consumption, improving dietary levels and increasing the farm market, lies with low-income groups that have only limited food purchasing power from their own resources.

Direct Federal action to bridge the gap between agricultural abundance and requirements of those in need began during the depression of the 1930's and has—to a greater or lesser degree—continued since that time. However, more recent economic and social developments—including the increasing awareness of the special problems faced by the governments and people of our so-called depressed areas—have led to more intensive efforts to get more of our food to a greater number of our needy people.

Essentially, the Federal food distribution programs represent a social consciousness found in few other places of the world. And, happily for our country, the fact that distribution programs of this magnitude are made possible by our agricultural prowess, is a tribute to the American farmer's ability to produce, and the American citizen's willingness to share this abundance.

Food distribution has now become not only one of the important links between farm and city, but a vital bridge

between this Nation and the other peoples of the world. And, simultaneously, it represents one of the major facets of the many-sided attack on our farm surplus problems—the expanding use of agricultural commodities.

USDA's food distribution programs are not self-contained, nor self-sustained. They build upon the constant and long-range efforts to increase the efficiency of our production and marketing system; they recognize the need to make constructive use of food that finds its way into Government inventories or ownership; they rely upon broader efforts in the field of nutrition education for consumers; and they are designed to provide for food needs unmet by assistance programs.

Specifically, the term "food distribution" has come to mean a series of inter-related action programs designed to improve national dietary levels and to expand current and future markets for food. These activities include:

1. *The Plentiful Foods Program*—the Agricultural Marketing Service works with producer and marketing groups to promote the sale and use of seasonally and other abundant foods.
2. *The National School Lunch Program*—assists elementary and secondary schools to serve nutritious and moderately-priced lunches to children.
3. *The Special Milk Program*—helps schools, camps, orphanages and other nonprofit child-care institutions to make more fluid milk available to more children.
4. *Direct Distribution Program*—federally owned foods are donated to schools, charitable institutions and needy families through the facilities of State and local governments.
5. *Pilot Food Stamp Program*—tests another approach to improving the diets of low-income families by using the facilities of the commercial marketing system.

The Plentiful Foods Program

The Department has long undertaken or cooperated in programs to provide consumers with information on food

supplies and prices. This approach is a direct outgrowth of the World War II effort to manage civilian food supplies by encouraging consumers to shift from rationed and other scarce foods to those in more abundant supply.

The specific purpose of the Plentiful Foods Program is to increase the commercial marketing of foods that are in peak seasonal supply or are otherwise plentiful. The program accomplishes its purpose by mobilizing, on a voluntary basis, the merchandising and informational resources of food trade and allied groups in support of the sales and promotion efforts of the various producer groups.

Emphasis is placed upon obtaining the cooperation of food retailers, the food service industry, food editors of communications media, and food and nutrition leaders who work directly with consumer groups. Retailers influence consumer choices through their advertising and in-store promotions. The food editors of newspapers, magazines, radio and television continually supply homemakers with information that creates interest in a variety of foods.

The National School Lunch Program

Federal assistance to school lunch programs began in the early 1930's when surplus foods were first donated to schools. However, the U. S. Department of Agriculture had been active in this field much earlier. Prior to World War I, charts had been prepared for posting in school lunchrooms. They depicted the elements of a balanced and wholesome lunch—the prototype of the present Type A lunch.

The postwar period added still another important facet to the distribution programs of USDA—the National School Lunch Act of 1946, which placed school feeding on a permanent basis. Special provisions, that is Section 6 of the Act, directed the Department to set aside part of the annual appropriation for the purchase and distribution of nutritive foods. This feature, of course, brought a new direction to the distribution programs by authorizing special purchases to fill a special need, rather than depending entirely on surplus foods.

Under the National School Lunch Program, each participating school agrees to serve a lunch meeting the Type A pattern. This lunch includes, as a minimum, a protein-rich food, a generous serving of fruits and vegetables, bread and butter or fortified margarine, and one-half pint of milk.

Most of the food used in the school lunch programs receiving Federal assistance is purchased locally by the schools from local suppliers. Last year, schools purchased some \$600 million worth of food locally, of which \$500 million was financed by State and local funds. The remainder—\$98.8 million to be exact—represented Federal funds apportioned to the States specifically for locally-purchased foods. In addition, about \$182 million of USDA-donated foods were used in school feeding programs.

The program is administered in each State by the State educational agency. Federal administration is by USDA's Agricultural Marketing Service, which provides technical guidance as well as the cash and commodity assistance.

Currently, the National School Lunch Program is in operation in some 65,000 schools in all 50 States, D. C., Puerto Rico, Virgin Islands, Guam, and American Samoa.

These schools represent about two-thirds of our elementary and secondary school enrollment. On a typical day, some 15 million children eat the Type A lunch. Thus, the program offers a substantial market for a wide variety of foods. It is estimated, for example, that almost 5 percent of last year's record pack of canned peaches was used in the National School Lunch Program, and almost 10 percent of the record pack of canned snap beans went into the program.

During the last session of Congress major changes were made in the basic National School Lunch legislation. These changes are expected to result in an even more effective program with increased emphasis on reaching children in economically needy areas.

The Special Milk Program

Operated somewhat differently than other distribution plans, the Special Milk Program entails no physical handling of any commodity by the Federal Government, but allots cash reimbursements to participating schools, summer camps and nonprofit child-care institutions to enable them to serve more fluid whole milk to more children at reduced cost to the youngsters.

This activity developed from a section of the Agricultural Act of 1954, which provided a two-year authority to use funds of the Commodity Credit Corporation to increase the use of fluid milk in schools. From time to time, that authority was extended and the program was enlarged to include nonprofit summer camps, orphanages, and other child-care institutions. The Agricultural Act of 1961 provides continuing authority for the program and shifts the source of funds to regularly appropriated funds.

Again, today's Special Milk Program is a variation of an earlier venture that grew out of the depression, and the need to supplement children's diets simultaneously with expanding the markets for agricultural products. In June of 1940 a "penny milk" experiment was first tried successfully in Chicago, and by May of the following year it was operated in eight city areas serving more than half a million children.

Today, in some 87,000 schools and child-care institutions, the milk program is a positive nutritional aid, as well as a significant means of expanding fluid milk outlets for the dairy industry. In fact, the combination of the National School Lunch and Special Milk Programs now accounts for about 5 percent of the annual non-farm consumption of fluid milk.

Special efforts by Federal and State groups over the last two years have helped needy children in economically depressed areas to enjoy fresh milk at school for the first time, by making it available to them free.

The Direct Distribution Program

For more than 25 years, authority has been available to the Department of Agriculture to donate foods acquired under price-support and other market stabilization programs to low-income groups and school feeding programs within this country.

It was first provided in emergency farm and relief legislation of the early 1930's and subsequently in Section 32 of the Act of August 24, 1935. Later, Section 416 of the



Foods from USDA for disaster feeding

Agricultural Act of 1949 provided additional specific authority to donate foods acquired under price-support programs and this authority was further liberalized in Public Law 480.

All of these pieces of legislation add up to a sustained, effective distribution policy that shares America's farm abundance not only with our own citizens but with needy persons throughout the free world.

The food distribution programs have always depended upon the active cooperation of many governmental units and private welfare agencies. Domestically, USDA's Agricultural Marketing Service delivers the food to the States. State and local governments arrange for the subsequent handling, storage and distribution to recipients. Determination of eligibility of needy persons for family donation programs is also the responsibility of State and local public welfare agencies. Foreign relief and school lunch donations are made by AMS through U. S. voluntary church and welfare organizations, under Title III of P.L. 480.

Currently, over 25 million people in this country are receiving these federally donated foods. This total includes 17 million school children (these foods may also go to nonprofit summer camps and school lunch programs which do not receive Federal cash assistance), and about 1.4 million needy people in charitable institutions. About 7 million people who are members of economically needy families are also receiving help under this program. Donated foods, wherever located, are always made available immediately to help feed victims of natural disasters.

Overseas, U. S. Food-for-Peace is reaching school children and less fortunate people in over 100 countries.

The first Executive Order of President Kennedy called for an increase in the volume and variety of donated foods being made available to needy families. This was accomplished by increasing the number of items coming from the inventory of the Commodity Credit Corporation and by making market purchases of certain foods which were in need of marketing assistance.

In December of 1960, a total of 3.7 million people in needy families were receiving donated foods with a retail value of \$3 per person per month. Currently, the 7

million people in the program are receiving foods with a monthly retail value of about \$6 per person.

Pilot Food Stamp Projects

The pilot Food Stamp Program, begun in May 1961, is an experimental operation to test a different method of increasing the consumption of agricultural products. The program utilizes normal channels of trade and is a variation of the previous Food Stamp Plan which was operated between 1939 and 1943.

Under the pilot program, low-income families certified by State welfare authorities as in need of food assistance exchange the amount of money they would normally be expected to spend for food for coupons of a higher monetary value. For example, a family of four who normally could be expected to spend about \$60 a month for food can exchange that amount of money for perhaps as much as \$90 worth of coupons. The extra \$30 represents the Federal Government's contribution to the program. The family uses the coupons to purchase food at prevailing retail prices at any regular retail food store which has been approved to accept the coupons. Only a few items cannot be purchased with the food coupons—coffee, tea, cocoa, bananas and packaged imported items.

Extensive research accompanied the early months of the operation in the eight original pilot areas to measure the program's impact, effectiveness and acceptability. It was found that food sales in a sample of stores in the pilot areas increased by 8 percent, after the program went into operation.

Participating families made significant increases in the value of food used. More than 80 percent of this increase was accounted for by animal products—meat, poultry, fish, milk and eggs—and by fruits and vegetables. In the City of Detroit, for example, participating families increased their consumption of meat by about one pound a week per person.

Experience with program operations in the original pilot areas was sufficiently favorable to warrant an expansion to additional sections of the country in order to obtain a wider variety of operating conditions. By the end of the current fiscal year, it is expected that some 500,000 people will be participating in the pilot areas. During February 1963, participating families purchased some \$2.5 million in food coupons and received an additional \$1.5 million in bonus coupons to supplement their food purchasing power and improve the level of the family diet. Bonus coupons in February averaged \$6.58 per person for the 227,000 people participating in 19 counties and 2 cities.

Undoubtedly the coming years will see as many changes, refinements and variations in the food distribution programs as the last three decades have produced. But the built-in flexibility that permits distribution programs to change and develop to meet the challenges of a dynamic world is a source of satisfaction to all of us associated in the program. We can take pride, too, in being the agents through which the people of the United States share the great abundance of American farmlands not only with their less fortunate neighbors at home, but throughout the world.

(The author is Director of the Food Distribution Division, AMS.)

Selling Abroad

By Clarence R. Eskildsen

SELLING American farm products abroad is now a \$5-billion-a-year business that began 350 years ago when a few barrels of Virginia tobacco were unloaded in Britain from the ship *Elizabeth*.

This global export program is a vital link in our farm marketing system; and the marketing principles that we use domestically are fully applicable overseas—though the process is more complicated because of national boundaries.

If the last three and a half centuries of our foreign trade could be telescoped into a week, the last 50 years would be the last day in the week. And during this important “day” the United States has become the world’s largest exporter of farm products.

Our voluminous exports have enhanced our farmers’ incomes; have helped to slow down the outflow of U. S. dollars; and have given us, through the Food-for-Peace program, a means of doing what the Communists would like to do—advance foreign policy with food.

Our farm exports for the year ending June 30, 1913, stood at \$1.2 billion dollars and were 46 percent of our total exports.

In fiscal 1961-62, they had risen to an alltime high of \$5.1 billion dollars, which was about 25 percent of total exports; and for the year ending June 30, 1963, they are expected to again be close to \$5 billion. This means that for every 5 acres that our farmers harvest, the production of 1 acre goes abroad. On a quantity basis (using calendar year 1952-54 as a base of 100) the index has risen from 100 to about 195 in the last half century.

Traditionally and continually, the major U. S. agricultural exports have been wheat, feed grains, cotton, and tobacco. In more recent years rice, vegetable oils and oilseeds have become highly important, while animal products, fruits, and vegetables have sporadically been major export items in years of surplus.

Exports of grains for food and feed have fluctuated greatly over the years because of such divergent factors as self-sufficiency policies in foreign countries, droughts, and wars. (Because of its storability, ease of transport, and high protein content, wheat has always been in great wartime demand.) The high postwar volume of wheat shipments has reflected needs of a booming European economy and a developing Asia.

Cotton exports fell during both World Wars, but much more sharply in World War II than I. Since 1945, shipments have trended upward but stability has wavered because stepped-up foreign production of cotton and greater use of synthetics have sharpened competition.

Tobacco exports have been relatively stable since the

Civil War, although yearly fluctuations have widened since importing countries imposed trade restrictions after the outbreak of World War I.

As for vegetable fats and oils, the United States was usually a net importer until the late 1930’s, but during World War II many important sources of supply were lost. A dramatic spurt in domestic production soon brought us into the position of a net exporter of vegetable oils; and in the last few years average exports have been 10 times those in early postwar years.

While wars and weather, both hot and cold, account for many of the ups-and-downs in our trade level, exports have been and will continue to be affected by a variety of other events. To mention only a couple:

Passage in 1954 of Public Law 480 (basic Food for Peace legislation), whereby agricultural products can be sold for foreign currencies, on long-term dollar credit, bartered, or donated to meet emergencies. About 30 percent of our current farm exports now move under this law, while the rest are “hard dollar” sales.

Establishment in 1957 of the European Common Market. This trading area is composed of 6 of our traditional customers—France, West Germany, Italy, Belgium, the Netherlands, and Luxembourg—who traditionally take about one-third of our dollar agricultural exports. Here we have both trade problems and opportunities.

Meanwhile the job of expanding exports goes on. Its four main facets are: (1) promoting markets through industry-government projects, surveys of market potentials abroad, participation in trade fairs, and the like; (2) keeping prices competitive by export subsidies and other means; (3) operating a global “intelligence” service with a core of 60 agricultural attaches covering developments in over 100 nations; and (4) continuous pressure for trade liberalization.

Success of efforts to date is due in large part to teamwork between private trade groups and the USDA’s Foreign Agricultural Service, set up in 1953 as an outgrowth of its predecessor agency, the Office of Foreign Agricultural Relations established in 1939.

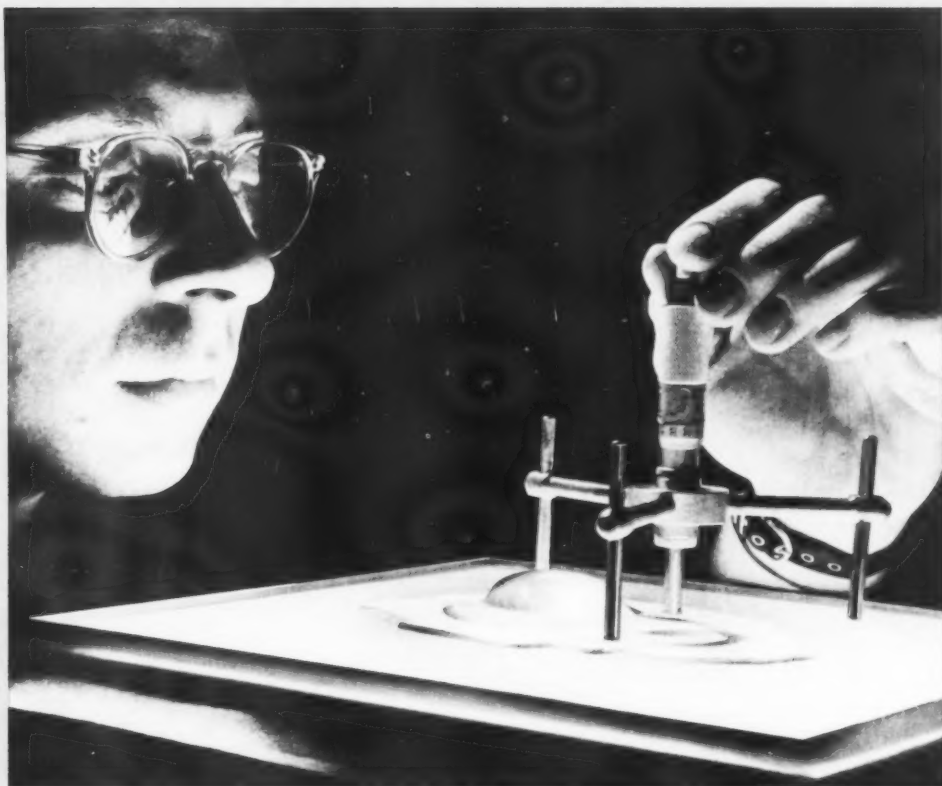
The Agricultural Marketing Service, too, has played an important part in swelling our export volume. Thanks to its grades and grading services, and inspection for wholesomeness, exporters and importers have been given a common language of trade along with an assurance of quality. And our foreign customers are becoming more and more quality conscious.

With world population increasing by 45 million a year, food needs are expanding and will mount further. It is reasonable to expect greater demand abroad for U. S. agricultural products—by present dollar-paying industrialized nations and by the developing countries who now purchase under the Food-for-Peace program but are potential hard currency customers.

And, despite current obstacles, headway is being made in achieving freer exchange of commodities around the world.

In the light of these factors, America’s farm exports should continue strong for many years to come.

(The author is Associate Administrator of the Foreign Agricultural Service, USDA.)



TOMORROW

Science, enterprise, and public services together have brought agricultural marketing to the threshold of what may be its golden age. Mass production cannot exist without mass marketing—and both are constantly evolving new forms. No one can forecast the future with certainty; but here are educated guesses based on work being done and ideas conceived today. Just ahead lies the electronic identification of that elusive ingredient that makes cooked meat delectable. Much of our grading and inspection will be supplanted by automatic quality control. Research will find more and more ways to safeguard food.

More and more shipments will be packed at the point of production and unpacked at or near the point of final sale without handling in between. We have learned that fresh fruits and vegetables live and breathe after harvest—tomorrow we will learn how to put them to sleep and awaken them at our pleasure. We may have push-button shopping at “ultramarkets” or electronic computers that take and deliver telephoned orders, to the consumer’s specifications. We can expect permanent moth-proofing of fabrics during manufacture; a greater variety of tasty, ready-to-serve foods from soups to desserts. New concentrates will cut the cost of shipments by air, or give us new dimensions of time and space for marketing overseas. Marketing will continue to change. And marketing services will need to hurry to keep abreast.



